RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: _____10/553, 659_____

Source: _____PCT_____

Date Processed by STIC: _____10/28/2005_____

ENTERED

PCT

RAW SEQUENCE LISTING   DATE: 10/28/2005
PATENT APPLICATION: US/10/553,659   TIME: 09:18:12

Input Set : A:\14174-070US1.txt
Output Set: N:\CRF4\10282005\J553659.raw

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     4 <110> APPLICANT: Manoharan, Muthiah
     6 <120> TITLE OF INVENTION: PROTECTED MONOMERS
     9 <130> FILE REFERENCE: 14174-070US1
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/553,659
C--> 11 <141> CURRENT FILING DATE: 2005-10-17
    11 <150> PRIOR APPLICATION NUMBER: PCT/US2004/011822
    12 <151> PRIOR FILING DATE: 2004-04-16
    14 <150> PRIOR APPLICATION NUMBER: US 60/465,665
    15 <151> PRIOR FILING DATE: 2003-04-25
    17 <150> PRIOR APPLICATION NUMBER: US 60/463,772
    18 <151> PRIOR FILING DATE: 2003-04-17
    20 <150> PRIOR APPLICATION NUMBER: US 60/469,612
    21 <151> PRIOR FILING DATE: 2003-05-09
    23 <150> PRIOR APPLICATION NUMBER: US 60/465,802
    24 <151> PRIOR FILING DATE: 2003-04-25
    26 <150> PRIOR APPLICATION NUMBER: US 60/493,986
    27 <151> PRIOR FILING DATE: 2003-08-08
    29 <150> PRIOR APPLICATION NUMBER: US 60/494,597
    30 <151> PRIOR FILING DATE: 2003-08-11
    32 <150> PRIOR APPLICATION NUMBER: US 60/506,341
    33 <151> PRIOR FILING DATE: 2003-09-26
    35 <150> PRIOR APPLICATION NUMBER: US 60/510,246
    36 <151> PRIOR FILING DATE: 2003-10-09
    38 <150> PRIOR APPLICATION NUMBER: US 60/510,318
    39 <151> PRIOR FILING DATE: 2003-10-10
    41 <150> PRIOR APPLICATION NUMBER: US 60/518,453
    42 <151> PRIOR FILING DATE: 2003-11-07
    44 <150> PRIOR APPLICATION NUMBER: PCT/US04/07070
    45 <151> PRIOR FILING DATE: 2004-03-08
    47 <150> PRIOR APPLICATION NUMBER: PCT/US04/010586
    48 <151> PRIOR FILING DATE: 2004-04-05
    50 <150> PRIOR APPLICATION NUMBER: PCT/US04/011255
    51 <151> PRIOR FILING DATE: 2004-04-09
    53 <160> NUMBER OF SEQ ID NOS: 28
    55 <170> SOFTWARE: FastSEQ for Windows Version 4.0
    58 <210> SEQ ID NO: 1
    59 <211> LENGTH: 16
    60 <212> TYPE: PRT
    61 <213> ORGANISM: Artificial Sequence
    63 <220> FEATURE:
    64 <223> OTHER INFORMATION: Exemplary Cell Permeation Peptide
    66 <400> SEQUENCE: 1
    67 Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
```

C(pg-6)

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Input Set : A:\14174-070US1.txt
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68   1              5                    10                   15
70   <210> SEQ ID NO: 2
71   <211> LENGTH: 14
72   <212> TYPE: PRT
73   <213> ORGANISM: Artificial Sequence
75   <220> FEATURE:
76   <223> OTHER INFORMATION: Exemplary Cell Permeation Peptide
78   <400> SEQUENCE: 2
79   Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Cys
80   1              5                    10
82   <210> SEQ ID NO: 3
83   <211> LENGTH: 27
84   <212> TYPE: PRT
85   <213> ORGANISM: Artificial Sequence
87   <220> FEATURE:
88   <223> OTHER INFORMATION: Exemplary Cell Permeation Peptide
90   <400> SEQUENCE: 3
91   Gly Ala Leu Phe Leu Gly Trp Leu Gly Ala Ala Gly Ser Thr Met Gly
92   1              5                    10                   15
93   Ala Trp Ser Gln Pro Lys Lys Lys Arg Lys Val
94               20                   25
96   <210> SEQ ID NO: 4
97   <211> LENGTH: 18
98   <212> TYPE: PRT
99   <213> ORGANISM: Artificial Sequence
101  <220> FEATURE:
102  <223> OTHER INFORMATION: Exemplary Cell Permeation Peptide
104  <400> SEQUENCE: 4
105  Leu Leu Ile Ile Leu Arg Arg Arg Ile Arg Lys Gln Ala His Ala His
106  1              5                    10                   15
107  Ser Lys
110  <210> SEQ ID NO: 5
111  <211> LENGTH: 26
112  <212> TYPE: PRT
113  <213> ORGANISM: Artificial Sequence
115  <220> FEATURE:
116  <223> OTHER INFORMATION: Exemplary Cell Permeation Peptide
118  <400> SEQUENCE: 5
119  Gly Trp Thr Leu Asn Ser Ala Gly Tyr Leu Leu Lys Ile Asn Leu Lys
120  1              5                    10                   15
121  Ala Leu Ala Ala Leu Ala Lys Lys Ile Leu
122               20                   25
124  <210> SEQ ID NO: 6
125  <211> LENGTH: 18
126  <212> TYPE: PRT
127  <213> ORGANISM: Artificial Sequence
129  <220> FEATURE:
130  <223> OTHER INFORMATION: Amphiphilic model peptide
132  <400> SEQUENCE: 6
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RAW SEQUENCE LISTING   DATE: 10/28/2005
PATENT APPLICATION: US/10/553,659   TIME: 09:18:12

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133 Lys Leu Ala Leu Lys Leu Ala Leu Lys Ala Leu Lys Ala Ala Leu Lys
134 1               5                10               15
135 Leu Ala
138 <210> SEQ ID NO: 7
139 <211> LENGTH: 9
140 <212> TYPE: PRT
141 <213> ORGANISM: Artificial Sequence
143 <220> FEATURE:
144 <223> OTHER INFORMATION: Exemplary Cell Permeation Peptide
146 <400> SEQUENCE: 7
147 Arg Arg Arg Arg Arg Arg Arg Arg Arg
148 1               5
150 <210> SEQ ID NO: 8
151 <211> LENGTH: 10
152 <212> TYPE: PRT
153 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: Exemplary Cell Permeation Peptide
158 <400> SEQUENCE: 8
159 Lys Phe Phe Lys Phe Phe Lys Phe Phe Lys
160 1               5                10
162 <210> SEQ ID NO: 9
163 <211> LENGTH: 37
164 <212> TYPE: PRT
165 <213> ORGANISM: Artificial Sequence
167 <220> FEATURE:
168 <223> OTHER INFORMATION: Exemplary Cell Permeation Peptides
170 <400> SEQUENCE: 9
171 Leu Leu Gly Asp Phe Phe Arg Lys Ser Lys Glu Lys Ile Gly Lys Glu
172 1               5                10               15
173 Phe Lys Arg Ile Val Gln Arg Ile Lys Asp Phe Leu Arg Asn Leu Val
174             20                25               30
175 Pro Arg Thr Glu Ser
176         35
178 <210> SEQ ID NO: 10
179 <211> LENGTH: 31
180 <212> TYPE: PRT
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Exemplary Cell Permeation Peptides
186 <400> SEQUENCE: 10
187 Ser Trp Leu Ser Lys Thr Ala Lys Lys Leu Glu Asn Ser Ala Lys Lys
188 1               5                10               15
189 Arg Ile Ser Glu Gly Ile Ala Ile Ala Ile Gln Gly Gly Pro Arg
190             20                25               30
192 <210> SEQ ID NO: 11
193 <211> LENGTH: 30
194 <212> TYPE: PRT
195 <213> ORGANISM: Artificial Sequence
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RAW SEQUENCE LISTING   DATE: 10/28/2005
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```
197 <220> FEATURE:
198 <223> OTHER INFORMATION: Exemplary Cell Permeation Peptides
200 <400> SEQUENCE: 11
201 Ala Cys Tyr Cys Arg Ile Pro Ala Cys Ile Ala Gly Glu Arg Arg Tyr
202 1               5                   10                  15
203 Gly Thr Cys Ile Tyr Gln Gly Arg Leu Trp Ala Phe Cys Cys
204             20                  25                  30
206 <210> SEQ ID NO: 12
207 <211> LENGTH: 36
208 <212> TYPE: PRT
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: Exemplary Cell Permeation Peptides
214 <400> SEQUENCE: 12
215 Asp His Tyr Asn Cys Val Ser Ser Gly Gly Gln Cys Leu Tyr Ser Ala
216 1               5                   10                  15
217 Cys Pro Ile Phe Thr Lys Ile Gln Gly Thr Cys Tyr Arg Gly Lys Ala
218             20                  25                  30
219 Lys Cys Cys Lys
220         35
222 <210> SEQ ID NO: 13
223 <211> LENGTH: 12
224 <212> TYPE: PRT
225 <213> ORGANISM: Artificial Sequence
227 <220> FEATURE:
228 <223> OTHER INFORMATION: Exemplary Cell Permeation Peptides
230 <400> SEQUENCE: 13
231 Arg Lys Cys Arg Ile Val Val Ile Arg Val Cys Arg
232 1               5                   10
234 <210> SEQ ID NO: 14
235 <211> LENGTH: 42
236 <212> TYPE: PRT
237 <213> ORGANISM: Artificial Sequence
239 <220> FEATURE:
240 <223> OTHER INFORMATION: Exemplary Cell Permeation Peptides
242 <400> SEQUENCE: 14
243 Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro Pro
244 1               5                   10                  15
245 Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro
246             20                  25                  30
247 Arg Phe Pro Pro Arg Phe Pro Gly Lys Arg
248         35                  40
250 <210> SEQ ID NO: 15
251 <211> LENGTH: 13
252 <212> TYPE: PRT
253 <213> ORGANISM: Artificial Sequence
255 <220> FEATURE:
256 <223> OTHER INFORMATION: Exemplary Cell Permeation Peptides
258 <400> SEQUENCE: 15
```

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259 Ile Leu Pro Trp Lys Trp Pro Trp Trp Pro Trp Arg Arg
260 1             5                 10
262 <210> SEQ ID NO: 16
263 <211> LENGTH: 16
264 <212> TYPE: PRT
265 <213> ORGANISM: Artificial Sequence
267 <220> FEATURE:
268 <223> OTHER INFORMATION: Synthetically generated peptide
270 <400> SEQUENCE: 16
271 Ala Ala Val Ala Leu Leu Pro Ala Val Leu Leu Ala Leu Leu Ala Pro
272 1             5                 10                  15
274 <210> SEQ ID NO: 17
275 <211> LENGTH: 11
276 <212> TYPE: PRT
277 <213> ORGANISM: Artificial Sequence
279 <220> FEATURE:
280 <223> OTHER INFORMATION: Synthetically generated peptide
282 <400> SEQUENCE: 17
283 Ala Ala Leu Leu Pro Val Leu Leu Ala Ala Pro
284 1             5                 10
286 <210> SEQ ID NO: 18
287 <211> LENGTH: 13
288 <212> TYPE: PRT
289 <213> ORGANISM: Human immunodeficiency virus
291 <400> SEQUENCE: 18
292 Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln
293 1             5                 10
295 <210> SEQ ID NO: 19
296 <211> LENGTH: 16
297 <212> TYPE: PRT
298 <213> ORGANISM: Drosophila Antennapedia
300 <400> SEQUENCE: 19
301 Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
302 1             5                 10                  15
304 <210> SEQ ID NO: 20
305 <211> LENGTH: 21
306 <212> TYPE: DNA
307 <213> ORGANISM: Artificial Sequence
309 <220> FEATURE:
310 <223> OTHER INFORMATION: "Dual targeting" siRNAs
312 <220> FEATURE:
313 <221> NAME/KEY: misc_feature
314 <222> LOCATION: 20, 21
315 <223> OTHER INFORMATION: n = dT= deoxythymidine
317 <400> SEQUENCE: 20
W--> 318 uaccagcacc caggugcugn n                                    21
320 <210> SEQ ID NO: 21
321 <211> LENGTH: 21
322 <212> TYPE: DNA
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RAW SEQUENCE LISTING ERROR SUMMARY        DATE: 10/28/2005
PATENT APPLICATION:  US/10/553,659        TIME: 09:18:13

       Input Set : A:\14174-070US1.txt
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```

Please Note:
**Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.**

```
Seq#:20; N Pos. 20,21
Seq#:21; N Pos. 20,21
Seq#:22; N Pos. 1,2
Seq#:23; N Pos. 1,2
Seq#:24; N Pos. 5,20,21
Seq#:25; N Pos. 16,20,21
Seq#:26; N Pos. 1,2,7
Seq#:27; N Pos. 1,2,18
```

VERIFICATION SUMMARY   DATE: 10/28/2005
PATENT APPLICATION: **US/10/553,659**   TIME: 09:18:13

        Input Set : **A:\14174-070US1.txt**
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L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:387 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0